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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/502,810	02/11/2000	Jonathan S. Brecher	103544.127	5710

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EXAMINER

ALLEN, MARIANNE P

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 04/25/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/502,810

Applicant(s)

BRECHER, JONATHAN S.

Examiner

Marianne P. Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 24-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/5/03 has been entered.

Claims 1-23 have been cancelled. Claims 24-44 have been newly added.

Information Disclosure Statement

Applicant is again encouraged to file an Information Disclosure Statement and is reminded of their duty to disclose information which is material to the patentability of the claims.

Specification

Applicant's submission of the copy of the stamped postcard indicating receipt by the PTO of the microfiche appendix of 382 frames on four sheets of microfiche materials is noted.

Claim Rejections - 35 USC § 112

Claims 24-44 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Applicant has added new claims 24-44. With respect to independent claims 24 and 44 applicant points to basis in Figure 3A-B and to basis at page 5, lines 13-15; page 13, line 14, through page 17, line 12; page 19, lines 3-12; and page 19, line 19, through page 24, line 15.

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However, the generic method as now claimed is not disclosed nor contemplated by these portions of the specification. The specification does not describe a method having the steps presently recited in the claims. The portions pointed to are within the context of a particular method used by applicant and not the presently claimed generic method.

Figures 3A-B are the most generic portion of the disclosure pointed to. It is noted that the figure discloses dividing the name into a series of fragments and then deriving a parallel list of nomtokens. Note that the parsing and deriving do not occur concurrently ("while parsing") and that the parallel list is of a particular kind ("nomtokens") not any data object corresponding to any fragment. It is noted that "nomtoken" is disclosed in the context of a particular data structure (see Figure 6). It is noted that the preprocessing step in Figure 3A involves the steps set forth in Figure 4. (See specification starting at page 5, line 11.) Figures 3A-B do not "adjust the connections table" rather the appropriate stereochemistry is added to the connection table. Note that the steps of the method as set forth in Figures 3A-B do not correspond to the steps in the recited method.

Applicant is requested to point by page and line number in support of each step and limitation in the new claims. Note that while the independent claims have been specifically addressed above, there can be no support in the specification for any of the dependent claims either.

Claims 24-44 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This is an enablement rejection.

Claim 24 and dependent claims 25-43 are directed to a method for use in deriving chemical structural information.

Claim 44 is directed to computer software residing on a computer-readable storage medium.

The method of claim 1 requires "preprocessing," "parsing," "removing," "adjusting," and various steps of "deriving." The specification discloses a method of processing a text string for a chemical name according to some very specific text processing rules (e.g. converting all to lower case) and some very specific chemical nomenclature rules (e.g. separating the string "pentane" into the substrings "pent" and "ane" and not the substrings "penta," "n," and "e".) The text substrings are associated with particular data regarding its type/subtype and original position in the text string (context/environment). The specification discloses a method of consolidating the resulting meaningful substrings according to a particular algorithm to build a chemically accurate computer readable diagrammatic representation of the final resulting structure using a connectivity table. This is not the method, system, or computer software being claimed.

All of the claims as written are lacking critical elements. The specification does not provide guidance on general parsing strategies to generate chemically accurate structures from text strings. (Note that only claim 26 even mentions text strings.) The specification does not provide guidance on general computer executable logic strategies to generate chemically accurate structures from text strings. The verbs "preprocessing," "parsing," "removing,"

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“adjusting,” and “deriving” do not describe with particularity nor enable the specific and concrete actions that must be taken to achieve or accomplish the stated goal. The claims do not provide the processing rules to be used, do not provide the algorithmic steps to determine type and position information such that the structural representation can be determined. The specification provides only for particular processing rules and steps to determine type and position information to be used to generate structure.

Note with respect to claim 26, the specification does not disclose the identity of any dictionary of known text strings.

The new claims in no way reflect the particular method for text processing and structure generation outlined in the specification and set forth in the microfiche.

Any reliance applicant is placing co-pending application 09/502,133 to enable the instant application is unfounded. At best this is an improper incorporation by reference as this co-pending application is neither allowed nor an issued patent.

Claims 24-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 24 and 44 recite “fewer data objects that the list.” This is confusing language and may reflect a typographical error.

Claims 24 and 44 recite “descriptive text that does not contribute information regarding chemical structure.” The specification does not provide the metes and bounds of what this would encompass.

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Claim 27 recites “choosing a data object having a highest rank.” This is confusing because the claim does not require ranking nor does it specify how data objects are to be ranked such that one could be chosen.

Claim 28 recites “corresponds to text including “solution”.” It is unknown what is intended by this claim.

Claims 30-35 and 42-43 recite further steps; however, the claims do not make clear when or where these steps occur within the context of independent claim 24.

Claims 32-33 are confusing in requiring a particular determination where the information is not further used by the method. That is, how does determination of the presence or absence of the substring “mer” alter the ultimate output of the method of claim 24? Likewise, the information determined in claim 30 (counting parentheses), 31 (converting one character to another), and 35 (maintaining a repeat count) is not further used.

Claim 34 is confusing in requiring a particular parsing where the chemical name may not include the text “pentane.”

Claims 36-38 are unclear as to whether the further analysis is before or after adjusting the connection table.

Claims 39-41 recites “causing the consolidated list to reflect joining.” It is not known from the specification what specific and concrete action must be performed to meet this limitation.

Claim 44 recites “to help cause” in the preamble. It is unclear what this is intended to encompass.

Claim Rejections - 35 USC § 102

The rejection of claims 1-5, 7-16, 18-23 under 35 U.S.C. 102(b) as being anticipated by Boyer et al. (U.S. Patent No. 5,345,516) is withdrawn in view of applicant's amendment but could be reinstated if the new matter rejection is overcome.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24, 26, 29, 31, 35-39, and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyer et al. in view of Araki (U.S. Patent No. 4,473,890).

Boyer et al. is applied as set forth in the prior Office actions. The connection table is not adjusted based on a stereochemical indicator.

Araki discloses using a connection table to express the structure of a chemical compound using a computer. The importance of the stereochemical information is disclosed. The connection table reflects stereochemical information. See at least abstract, figures, and claims. The reference does not disclose parsing a chemical name.

It would have been obvious to modify the method of Boyer et al. to include stereochemical information in the connection table as taught by Araki. Araki makes clear that such stereochemical information would have been of interest to those of ordinary skill in the art at the time of the invention and teaches producing a connection table to reflect this information.

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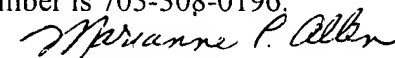
Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 7:00 am - 1:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Marianne P. Allen
Primary Examiner
Art Unit 1631

mpa
April 23, 2003